

WEATHER ON THE NORTH ATLANTIC OCEAN

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Atmospheric pressure.—For the greater part of the North Atlantic Ocean that is covered by reports at hand, the pressure averaged less than normal during January 1941. This was especially true of the area around the Azores and thence eastward to the Iberian peninsula; at Horta the pressure averaged 6.0 millibars (0.18 inch) less than normal, largely because of very low readings during the week from the 19th to the 25th. At Lisbon, Portugal, pressure during this week was similarly very low for the locality, and a reading was noted on the 21st of 979 millibars (28.91 inches). This was considerably below the lowest reading reported from Horta.

Over waters close to the coasts of Newfoundland, the Maritime Provinces, and the Atlantic States, the pressure generally averaged a little above normal, while at New Orleans, La., it was decidedly above, the positive departure being 2.7 millibars (0.08 inch).

The extremes of pressure found in available vessel reports were 1037.3 and 969.2 millibars (30.63 and 28.62 inches). The high reading was noted on the American liner *Ermoor*, about 70 miles to southeastward of Sandy Hook, during the forenoon of the 7th. The low mark was recorded by the United States Coast Guard cutter *Hamilton*, at 6 p. m. of the 12th, near 40° N., 60° W.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, January 1941

Station	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Millibars	Millibars	Millibars		Millibars	
Lisbon, Portugal ¹	1,013.6	-5.7	1,028	3	979	21
Horta, Azores	1,015.0	-6.0	1,030	31	994	22
Belle Isle, Newfoundland	1,006.1	+0.6	1,028	12	971	13
Halifax, Nova Scotia	1,013.4	+0.5	1,034	16	977	4
Nantucket	1,017.3	0.0	1,034	7	993	4
Hatteras	1,020.0	+0.4	1,034	21	1,005	4
Turks Island	1,016.8	-1.8	1,020	14	1,010	10
Key West	1,019.0	+0.7	1,028	20	1,010	16
New Orleans	1,021.7	+2.7	1,034	10	1,002	16

¹ For 24 days.

NOTE.—All data based on available observations, departures compiled from best available normals related to times of observation, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

Cyclones and gales.—There was apparently less storminess over the North Atlantic than during an average January. During the first 3 and the last 5 days of the month there were, by reports at hand, no notably intense gales.

A brief but intense wind-shift squall, with no marked depression of the barometer, was encountered about 6 p. m. of the 5th at a position in the Gulf of Mexico about 220 miles to southeastward of the mouth of the Mississippi River. The report furnished by the Am. S. S. *Texas* (A. Lartsch, captain; R. J. Jones, observer) follows. The correction to be applied to the barometer readings, which are given as read, is -0.09 inch; hours are ship's time:

The wind was south-southeast, 4, with a moderate sea and light rain, the barometer being 30.02 at 4 p. m. At 5:55 with sky overcast and light rain, the wind veered to north, 3. At 6:05 the wind increased to force 12; the sea was small at the time; barometer read 29.98; the sky was overcast, with lightning and heavy driving rain. At 6:30 a heavy confused sea and northerly swell suddenly appeared and the wind veered to northeast, at a force of 10. Then the wind gradually abated down to force 7 from northeast by 8,

sky cloudy; barometer read 30.02; sea heavy confused, and northerly swell. At 10 p. m. sky was partly cloudy; sea rough confused, heavy northerly swell; barometer 30.15; wind had abated from force 7 to force 5 still from northeast.

The most important storm of the month over waters not far from the United States was evident on the morning of the 9th, over the northern Bahamas, though it was of no marked strength as yet. It advanced northeastward, passing near Bermuda, to the northwestward, during the night of the 10th-11th, and had by this time become of marked intensity. The U. S. S. *Bowditch*, close to Bermuda, reported the low reading of its barometer as 28.99 inches (981.7 millibars). There was a considerable increase in force during the 11th and the first part of the 12th, as the low proceeded northeastward. The center was east of Cape Breton Island during the forenoon of the 13th, then during the 4 days following it took a more northerly course, with probably some loss in strength, reaching the waters to westward of central Greenland by the 17th. The low reading of the *Hamilton*, early on the evening of the 12th, has already been noted. The *Hamilton* and two other Coast Guard cutters, *Spencer* and *Bibb*, recorded winds of hurricane force in connection with this storm, these and the squall met by the *Texas*, already noted, being the only known instances for the month of force-12 winds over North Atlantic waters.

Among the vessels which were much battered by encountering this storm, the American steamships *West Kebar* and *Otho* may be mentioned. The former had a motor launch smashed and suffered considerable structural damage but presently made port in Boston. The *Otho* was hove to for 3 days, then duly arrived in New York harbor; but about 900 tons of palm oil had been jettisoned, and there was 23 feet of water in No. 1 hold. Captain Smith of the *Otho* considered this the worst storm he had ever met during long experience at sea.

The American liner *Santa Rosa* arrived in Bermuda from New York showing considerable damage, especially to lifeboats; this arrival was 2 days later than scheduled, but part of the delay was apparently due to her turning back to stand by the injured *West Kebar* until a cutter could reach that vessel.

A storm of marked energy for the part of the ocean affected was centered on the morning of the 19th to northeastward of the Azores, and entered the northwestern part of the Iberian peninsula on the 20th. The American liner *Exeter* encountered whole-gale winds connected with this storm.

Another low of considerable strength crossed the coast of Virginia late on the 24th and traveled toward the east-northeast until southeast of Newfoundland late on the 26th. Two vessels reported whole gales as experienced while within the area affected by this storm.

Fog.—In general, fog was noted more times during January than during the preceding December, particularly near the American coast from New Jersey to the Carolinas.

The 5° square, 35° to 40° N., 70° to 75° W., reported fog on 10 days, leading all other North Atlantic squares. In the northwestern Gulf of Mexico the square 25° to 30° N., 90° to 95° W., noted fog on 5 days, all but one of them after the 22d.

Near Miami fog was seen on the 7th and a short distance to eastward of Key West was observed on the 25th.

While most squares to eastward of the 60th meridian are not known to have had any fog during the month, the square 35° to 40° N., 45° to 50° W., furnishes reports of fog on 4 days, all within the final fortnight.